## **Abstract**

10/528,897

Mapo

In re: Phillip Mark Hunter

International Appn. No.: PCT/NZ2003/000218 International Filing Date: 24 September 2003

Page 3

In the Abstract:

PLEASE REPLACE EXISTING ABSTRACT WITH

On new page 22 following the claims, please insert the following paragraph:

mpo 5/5/09

## **ABSTRACT**

A battery management system includes a sensing module, a feeding module, a control module, and a common line adapted for connection to a battery when in use. In some embodiments, a battery management apparatus for managing a substring of cells in a string of cells includes a DC bus, a multiplexer/demultiplexer circuit operative to selectively couple nodes of the substring of cells to the DC bus, a DC/DC converter circuit having a first port configured to be coupled across a plurality of cells of the string and a second port coupled to the DC bus, the DC/DC converter operative to transfer energy between the first and second ports, a sensor circuit coupled to the DC bus, and a controller circuit configured to connect to a communications bus and operatively associated with the multiplexer/demultiplexer circuit, the DC/DC converter and the sensor circuit.